



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/577,226

06/26/2006

Kazuo Kuroda

8048-1157

4095

466 7590 12/23/2008

YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

EXAMINER

CHOW, VAN NGUYEN

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,226	Applicant(s) KURODA ET AL.	
	Examiner Van N. Chow	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 28 is objected to because of the following informalities: Claim 28 depends on the canceled claim 1, which should have depended on claim 14. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. (US 2002/0110068).

Regarding claim 14, Araki discloses an information recording apparatus for recording record information onto an information recording medium comprising:

a first recording layer on which the record information is recorded by irradiating thereon laser light (see Fig. 3, first layer 12); and

a second recording layer on which the record information is recorded by irradiating thereon the laser light through the first recording layer (see Fig. 3, second layer 14),

said information recording apparatus comprising:

a recording device for recording the record information into the first recording layer or the second recording layer by irradiating thereon the laser light (see Fig. 3, laser beam, first layer 12, second laser 14);

a first controlling device for controlling said recording device to record the record information into a first object area which is a recording area of the second recording layer which is irradiated with the laser light passing through a recorded area of the first recording layer in which the record information is already recorded (see Fig. 3, area 31, layer 14); and

a second controlling device for controlling said recording device to record the record information into a second object area which is a recording area of the second recording layer which is irradiated with the laser light passing through an unrecorded area smaller than a predetermined width, out of an unrecorded area which are adjacent to the recorded area (see Fig. 3, areas 31, 32, layers 12, 14).

Moreover, [0059] Araki discloses a recording is advanced sequentially from the inner circumferential side to the outer circumferential side; it is possible to advance it sequentially from the outer circumferential side to the inner circumferential side. Otherwise, it is possible to record information in random positions in an information recording layer. And [0016] In further aspect of the present invention, the controlling device controls the recording order so as to record information onto an adjacent information recording layer one by one farther from a light beam emitting source from the information recording layer nearest the light beam emitting source. [0017] According to this aspect, the controlling device controls the recording order so as to record information onto an adjacent information recording layer one by one farther from a light beam emitting source from the information recording layer nearest the light beam emitting source. Therefore, a near layer is always a recorded area and a further layer is always an

Art Unit: 2627

unrecorded area for the information recording layer to be an object of recording, thereby stabilizing a detection of a tracking error with keeping a stable irradiation condition with the recording light.

It would have been obvious to a one having ordinary skill level in the art at the time the invention was made to record the record information from the outer to inner on the first recording layer and inner to outer on the second recording layer in Araki, the motivation being in order to record information in sequence.

Regarding claim 15, discloses the information recording apparatus according to claim 14, wherein the unrecorded area is a border-in area, and said second controlling device controls said recording device to record the record information into the second object area which is irradiated with the laser light passing through the border-in area (see Fig. 3, area 33).

Regarding claims 16-21, discloses the information recording apparatus according to claim 14, further comprising a third controlling device for controlling said recording device to record the record information while preparing the unrecorded area having a width less than the predetermined width, if recording the record information into the first recording layer while preparing the unrecorded area following the recorded area; or the predetermined width is a numerical value determined by a recording unit of the record information; or the predetermined width varies depending on a radial position of the information recording medium; or the predetermined width corresponds to a size of a beam radius of the laser light on the first recording layer in the case that the second recording layer is irradiated with the laser light; or the information recording medium has a record track on which the record information is recorded and which is distributed concentrically or spirally, and the numerical value is a data size of the record information which can be recorded onto the record track which is included in the predetermined width at least partially or a first storing device for storing therein size information for indicating the numerical value (see Fig. 3 and

Art Unit: 2627

[0050]-[0057]); and said recording device records position information for indicating a position of the unrecorded area, onto the information recording medium (see Fig. 3, element 33).

Regarding claims 23-25, discloses the information recording apparatus according to claim 14, further comprising a fourth controlling device for controlling said recording device to record the record information while preparing a plurality of unrecorded areas, each of which has a width less than the predetermined width, if recording the record information into the first recording layer while preparing the unrecorded area which has a width is greater than the predetermined width following the recorded area (see Fig. 3) and wherein the record information is recorded such that a width between one and another unrecorded areas, prepared by control of said fourth controlling device, has a size greater than the predetermined width (see Fig. 3); and said first controlling device controls said recording device to record the record information into an object area portion other than at least one portion of an edge portion of the first object area (see Fig. 3); and said second controlling device controls said recording device to record the record information into the at least one portion which is adjacent to the second object area.

Regarding claim 27, see rejection above of claim 14.

Regarding claim 28, limitations cited in this claim are inherently include in the recording apparatus of Araki when finalizing the recording data onto the layer or at least it is well known in the dynamic data recording art at the time the invention was made to record the control information into the unrecorded area after the recording of the record information into the second recording layer is ended during the finalization of the recording. It would have been obvious to employ the finalization recording as well known in the art to record the control information into the unrecorded area after the recording of the record information into the second recording layer is ended so that data recording and/or reading operation can be easily controlled later.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuroda US 2002/0103431.

Matsuba US 7,385,897.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN T. PHAM whose telephone number is (571)272-7590. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Van N. Chow/
Examiner, Art Unit 2627

/Thang V. Tran/
Primary Examiner, Art Unit 2627